

**REMARKS**

In response to the pending Office Action, the limitations of claim 12 have been incorporated into independent claim 1. Claim 12 has been cancelled, without prejudice. New claim 14 has been added. Support for new claim 14 may be found, for example, in claim 1, and FIGS. 3 and 22. Hence, no new matter has been introduced.

Claims 1-8 and 11-13 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohara et al. (U.S. Patent Publication No. 2004/0209148, hereinafter “Ohara”); and claims 1-8 and 11-13 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohara in view of Sugiura et al. (U.S. Patent Publication No. 2004/0106028, hereinafter “Sugiura”).

Applicants appreciate the granting of an interview with the Examiner on March 5, 2012 to discuss the rejections of the claims. During the interview, Applicants explained to the Examiner that the specification discusses the definitions of “upstream portion” and “middle stream portion and subsequent portion” that are recited in claim 1 on pages 11-23 of the specification. Applicants also referred the Examiner to claim 12, which depends on claim 1, which further defines “upstream portion” as  $L1 \leq L2$ , where: L1 represents a length of the upstream portion of the cooling fluid channel, and L2 represents the total length of the anode-side gap. In response, the Examiner reviewed his previous rejection of claim 12, and stated that upon further consideration, claim 12 does not appear to be disclosed in the prior art. The Examiner stated that if the limitations of claim 12 were incorporated into claim 1, the § 103 rejections would be overcome, as, at a minimum, neither Sugiura nor Ohara teach or suggest the limitations directed toward the various defined portions of the fuel cell flow path.

Also during the interview, Applicants introduced a limitation which recites “at least one of the cooling fluid flow channel, the fuel gas flow channel and the oxidant gas flow channel includes a serpentine-shaped portion and a surrounding portion arranged such that the surrounding portion is formed along the periphery of at least two sides of the MEA, and is arranged on the outside of the serpentine-shaped portion such that the surrounding portion surrounds at least two sides of the serpentine-shaped portion”. The Applicants referred to FIG. 3 and explained how the limitation allows for the portion closest to the coolant input to overlap with the middle and subsequent portions of the gas channel such that the cooler portion of the coolant fluid channel helps to condense the excess water vapor in the middle and subsequent portions of the gas channel. In addition, Applicants pointed out that Sugiura and Ohara do not disclose or suggest this limitation. The Examiner agreed that this limitation is not taught or suggested by the cited prior art. As such, Applicants have added new claim 14 that contains the above recited limitation.

In view of the above amendments, Applicants therefore submit that the rejection of claims 1-8 and 11-13 under 35 U.S.C. § 103 is overcome and respectfully request that the rejection of claims 1-8 and 11-13 be withdrawn. Furthermore, Applicants submit that claim 14 is also allowable for the reasons set forth above.

### **Conclusion**

In view of the above amendments and remarks, Applicants submit that this application should be allowed and the case passed to issue. If there are any questions regarding this Amendment or the application in general, a telephone call to the undersigned would be appreciated to expedite the prosecution of the application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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